Use these four segments:

$\overline{AB}$ $A(12,16)$ $B(4,2)$ $\overline{CD}$ $C(-1,9)$ $D(-9,8)$

$\overline{EF}$ $E(4,-1)$ $F(20,1)$ $\overline{GH}$ $G(23,0)$ $H(2,12)$

1. Which two segments are parallel?

2. Which 2 segments are perpendicular?

3. Which two segments are congruent?

		SLOPE	DISTANCE FORMULA
$\overline{AB}$	$A(12,16)$ $B(4,2)$	$m=\dfrac{16-2}{12-4}=\dfrac{14}{8}=\dfrac{7}{4}$	$\sqrt{8^2+14^2}=\sqrt{260}$
$\overline{CD}$	$C(-1,9)$ $D(-9,8)$	$m=\dfrac{1}{8}$	$\sqrt{1^2+8^2}=\sqrt{65}$
$\overline{EF}$	$E(4,-1)$ $F(20,1)$	$m=\dfrac{2}{16}=\dfrac{1}{8}$	$\sqrt{16^2+2^2}=\sqrt{260}$
$\overline{GH}$	$G(23,0)$ $H(2,12)$	$m=\dfrac{12}{-21}=\dfrac{4}{-7}$	$\sqrt{12^2+(-21)^2}=$

$$\overline{CD}\parallel\overline{EF}$$
$$\overline{AB}\perp\overline{GH}$$
$$\overline{AB}\cong\overline{EF}$$